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ABSTRACT

This paper took as its problem the belief among the general public that conflict and violence among students is a common occurrence, especially in schools that are racially mixed. The responses of 303 students from a racially mixed school. Berkeley High School, were grouped in terms of the degree to which the individual students are socially integrated and the students were examined in light of the violence they had personally experienced. It was hypothesized that students who were socially integrated across ethnic boundaries were not involved with perceived violence and conflict on the campus, while aggressive acts, in the main, involved students whose friends and companions were of their own race. Data were collected by means of a questionnaire sent to about a third of the 1970 graduating class of Berkeley High School. The Tryon clustering of objects was used to identify independent groups of students who were socially isolated or integrated across races. That procedure was effective in that it generated six clearly identifiable groups of students who were socially isolated or socially integrated across the Asian, black, and white students in the school. Because of the low frequencies, the hypothesis that conflict and violence centers around students who are not socially integrated is not supported. (Author/JM)

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IDENTIFICATION OF SOCIAL GROUPS BASED ON SOCIAL INTEGRATION IN A MULTI-RACIAL HIGH SCHOOL.

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Statement of the Problem.

There is a belief among the general public that conflict and violence among students is a common occurrence, especially in schools that are racially mixed. One source of this point of view undoubtedly is in the news media and, in particular, local newspapers. A good example is available in the experiences of Berkeley, California, the first city of over 100,000 population to voluntarily desegregate its schools. The local newspaper has carried headlines such as, "BHS 'Climate of Fear' is told," "Pervading Atmosphere of Tension in Schools," "Warning on Violence--Principal Fears for BHS Students," and others with stories to match periodically over the years. (For example, see Berkeley Daily Gazette, December 10, 1971, February 13, 1973, and February 22, 1973.) With reports such as these, it is not surprising that the impression of violence in the schools persists. However, as reported in Conflict and Violence in California's High Schools by the California State Department of Education in 1973, "Violence, the most extreme form of conflict, does exist but to a much lesser degree than anticipated." Yet the report also noted that, "Much of school violence tends to be inter-racial and ethnic in nature."

While the public receives most of its information about conflict and violence from local newspapers, the exact source of information about this aspect of school life resides within the students who spend the major part of their waking hours in school or going to and from school. Students have not often been asked to report on what they have seen and experienced with respect to fights, quarrels, threats, or extortions on the part of peers of the same or other racial and ethnic backgrounds. In this paper,

the responses of 303 students from a racially mixed school have been grouped in terms of the degree to which the individual students are socially integrated and the students are examined in light of the violence they have personally experienced.

In 1966, the Berkeley Unified School District desegregated its three junior high schools by changing school boundaries. Most of the students who graduated in 1970 were involved with the desegregation program from its inception. Because of their unique experience, it was decided to ask them about their experiences during the previous six school years. For this survey, the cooperation of teachers was solicited and a number of teachers from the Social Studies Department at Berkeley High School assisted in the preparation of the questionnaires. Some teachers had definite ideas of the kinds of questions they would like to see appear on the questionnaires. After much consultation, items relating to inter- and intra-racial quarrels, fights, shakedowns, and threats were included. It was the expressed opinion of some teachers that violence was a common occurrance on the campus and that the prevailing strife generated a general fear of other students and, as a consequence, social isolation with respect to race and other ethnic characteristics.

During the item writing session with the high school teachers for the larger study of students' attitudes toward integration, it became clear that although the high school was technically desegregated, it was not in fact socially integrated. Teachers and counselors alike agreed that the student body was generally divided along racial lines and that this division was particularly observable in social situations.

From these discussions, it was hypothesized that students who were socially integrated across ethnic boundaries were not involved with perceived violence and conflict on the campus, while agressive acts, in the main, involved students whose friends and companions were of his or her own race. For this reason, questions that were designed to measure how well the students at Berkeley High School were socially integrated were added to the questionnaire of interracial violence and conflict and degree of social integration. It is hypothesized that students who are socially integrated are not involved with interracial violence and conflict while students who are not integrated across ethnic boundaries have greater incidences of interracial conflict.

In addition to studying the correlation between violence and social integration, this paper also serves to introduce the Tryon cluster method as a research tool for sociological investigations in educational settings. As far as is known, this study is the first to use this multivariate procedure in the study of social interactions.

Source of Data and Method of Analysis.

Data for this analysis were collected by means of a questionnaire sent to about a third of the 1970 graduating class of Berkeley High School. In the original planning of the study, it had been decided to test students in the school prior to graduation, but this plan had to be abandoned because on the scheduled day of the testing, students were not available. The events of May 1970 following the Cambodian invasion and the Kent State and Jackson State shootings, resulted in student protests

and demonstrations and a closing of Berkeley High School. For these reasons, the questionnaires were mailed to the graduates, address labels having been supplied by the school administration. From the set of 328 returned responses, complete useable data were obtained for 169 females and 136 males. The details of the sampling procedure are described by Marascuilo (1972), Dagenais and Marascuilo (1972), and Marascuilo and Dagenais (1974).

Data analysis for this investigation proceeds in two steps. The first part consists of a variable and object cluster analysis as defined by Tryon and Bailey (1970). The second part consists of a series of one way analyses of variance across the student groups defined by the Tryon analysis. Since the original set of responses are defined by ordered qualitative characteristics, the response choices are quantified by transformation to a Likert Scale. For discussion purposes, mean responses were then decoded to the original response choices.

The method of scoring used on the items of this analysis should be understood in order to make the remaining discussion easier to follow. For example, the response choices for Question 19 are given by:

VERY MANY MANY SOME FEW NONE

To help the students in their choice selection, these categories were further refined to read:

(11 or more) (6-10) (3-5) (1-2) (0)

Because of this specific quantification of the scale, the distance between the response choices are not equal intervals. However, for the analysis, the following equal interval scoring was used.

4 3 2 1 0

As a result, average scores actually refer to a category and not to the average value of a variable. For this reason, the five point scale has been divided into five continuous equal width intervals. These intervals are given by:

4-3.2 3.2-2.4 2.4-1.6 1.6-.8 .8-0

Thus, an average value of 2.7 signifies that the mean response choice is MANY and that the average number of new friends or acquaintances is given by 6 - 10 students. In a like manner, an average value of 1.3 refers to the response choice of FEW, with 1 to 2 new friends. In general, this coding should cause little confusion, and since the sample sizes are relatively large, it will not invalidate the use of the F test.

Cluster Analysis.

Cluster analysis as defined by Tryon and Bailey (1970) is a general algorithimby which one can group together entities on the basis of their similarities and differences. When the entities are variables, the procedure is called "the cluster analysis of variables" or "V-analysis." When the entities are objects, the procedure is called "the cluster analysis of objects" or "O-analysis."

This general definition of cluster analysis suggests how a researcher might use it in the analysis of empirical data. First step would be to perform a V-analysis on the raw data. This in turn, is followed by an O-analysis. Finally, any other pertinent analysis may be performed on the groups identified by the O-analysis. Essentially, a V-analysis is used to reduce a large number of interrelated variables to a smaller set of

"factors" that characterize the basic nature of the original set of variables. The new variables are employed in the O-analysis to defined groups or "clusters" of individuals who have similar profiles on the factors generated from the V-analysis. These groups become the domains of study on other dimensions or dependent variables that are of interest. This model is used to test the hypothesis that violence and conflict involves interaction among students of different peer groups of integrated-non-integrated students.

V-analysis.

The independent variables on which the V-analysis of this investigation is based are reported in Table 1. These 18 items are related to the amount of social interaction that takes place between students who are Asian, Black, or White. The original questionnaire included responses for Chicanos, but since the population under study contained so few Chicanos, these items were eliminated from the analysis.

Correlations among the Likert scaled items for the 169 girls and 136 boys for which complete data was available are reported in Tables 2 and 3. Inspection of these correlation matrices suggests the existence of three clearly defined groups of items. This is apparent in the correlation of each A item with other A items, each B item with the other B items, and each W items with the other W items.

The results of the V-analysis for boys and girls are summarized in Table 4. As can be seen, three factors have been identified for both girls and boys. In addition, it is apparent that the factors are virtually identical for both sexes. Factor

one is defined mainly by variables 18A, 19A, 20A, 21A, 22A, and 24A. The factor coefficients for these items for the girls are given by the values .73, .76, .77, .77, .67, and .69 and for the boys by .80, .52, .77, .83, .73, and .74. Factor one involves all the items that relate to socialization with Asians. Students who score high on this item have many Asian friends and acquaintances. They have visited the homes of their Asian friends and acquaintances frequently, and they have had Asian friends and acquaintances visit their homes on a regular basis. They have lunch often with Asian friends and have gone to sporting events, school dances, and other student activities after school with Asian students. Students who score low on this dimension by self-report have not socialized with Asians. Further inspection of the factor coefficients shows that factor two is defined by items 18B, 19B, 20B, 21B, 22B, and 24B, with factor three identified by items 18W, 19W, 20W, 21W, 22W, and 24W. Factors two and three have the same polar nature as factor one, but for these factors the referents of the items are either Black or White.

With self-reported attitude variables, measures of reliability are of major importance since if the data have poor reliability it is immediately known that they also have low validity. For these two sets of factors defined by the V-analysis the reliability measures reported in Table 3 are quite high with the lowest reliability measure being .82. Of course, the validity of the factors cannot be measured and is open to question since the factors are based on self-reports. Even so, there is a good degree of content validity in the responses since each of the three factors is defined exclusively in terms of a racial variable

that related to social interaction and acceptance of Asians, Blacks, and Whites, respectively.

O-analysis.

For the O-analysis, each item response for each subject was converted to a standardized Z score. From these, a simple sum of the six Z scores was obtained for each of the three factors for each of the 169 girls and 136 boys. The resulting total Z scores were standardized to give a mean of 50 and a standard deviation of 10. After this standardization, the Tryon O-analysis procedure separated each of the three factor scales into three parts with the divisions occurring at Z scores of 40 and 60, or at plus and minus one standard deviation from the mean of each factor. This division automatically produces 27 possible O-types which are categorized as being either low, medium, or high on each of the three variables. With this initial partitioning of the subjects, a test is made of each individual to determine whether or not the individual's profile across the three factors is more like the mean profile of some other possible O-type. If the profiles are similar, the subject is moved to the O-type of greatest similarity. Eventually, this produces a new set of O-types. With this new set of O-types, the process is repeated, giving rise to a third set of O-types. The process is then repeated until two consecutive runs produce identical placement of subjects. For these factors, 15 non-null O-types were generated for the girls and 19 for the boys. The basic nature of these O-types are summarized in Table 5 for girls and in Table 7 for boys.

O-types Among the Girls.

Among the girls, the largest group of O-types contains 25 girls who are low in their socialization with Asians, high in their socialization with Blacks, and low in their socialization with Whites. All of these girls are racially Black. They interact for one reason or another strictly with themselves and may be conveniently called Black Isolates. They report that they have no friends or acquaintances who are Asian or White. They have not had an Asian or a White as a guest at home nor have they visited the home of an Asian or White student from their school.

The second largest group consists of 21 girls who are classified as medium on all three factors. This group consists of 8 Asians, 1 Black, and 12 Whites. These girls express a moderate degree of social interaction with members of the racial groups asked about in the questionnaire and, as a result, show signs of social integration.

The next largest group consists of 20 girls who are medium in their social acceptance of Asians and Blacks and high in their degree of social interaction with Whites. Two of these girls are Asian and 18 are White. Whereas the previous group of girls tended to cut across social class boundaries as measured by home location, the White girls of this group are predominantly from the high SES census tracts of Berkeley. While they report moderate levels of social integration with Asians and Blacks, the major part of their social interaction takes place with White friends whose socio-economic status is high, like their own.

Finally, there is a fourth large group of 20 girls who are low in their degree of interaction with Asians, medium

in their interaction with Blacks, and high in their interaction with Whites. This group consists of 1 Black and 19 Whites of which 17 came from the high SES census tracts in Berkeley. While these girls show moderate socialization with Blacks, they also high socialization with Whites.

These four O-types comprise 86 of the 169 girls. The remaining eleven groups, while unique and of interest in themselves, are too small to comment about, since they average about eight members. Because of this, the Tryon method of hierarchical condensation of O-types was applied to the original set of O-types. This procedure is based upon combining groups whose centroids are close together in the Euclidian definition of distance. In this particular application the first step in the condensation shown in Figure 1 involved the bringing together of the two groups for which the profiles are LML and MHL. This produced a group of 18 girls whose profile is given by LHL. This group then combined with group LML to produce the final O-type LHL. This procedure was repeated until six basic O-types were created. The racial composition of these six groups is presented in Table 6, along with mean values on the three factors and the number of each race in each group.

Group MLL. This group consists of 25 girls of all three races with 13 of them of Asian origin. These girls have many Asian friends and acquaintances. They visit the homes of other Asians and they invite them to their homes. They have lunch with other Asians and they attend outside school activities together. The four Blacks and eight Whites that are members of this group constitute an unusual group of girls who report that

they socialize more frequently with Asians than they do with members of their own race. Reasons for this unusual and race-specific integration are difficult to identify.

Group LHL. Of the 34 girls who comprise this group of students, 33 are Black and one is Asian. These girls are like the Asians of group MLL in that they mix socially only with other Black students. Of the total group of 45 Black girls, these girls account for 73 percent of the respondents. While these girls are in an integrated school, it is apparent that they are not socially integrated. They are probably a highly visible group in the school and may account for the teachers' observations that school integration has little to do with social integration.

Group LLM. This group consists of White counterparts to Asians and Blacks who constitute Groups MLL and LHL. These girls definitely shun social interactions with Blacks. Their mean standard score of 34.9 is the lowest mean value reported in Table 6.

Group MMH. This group consists of 18 Asians, 2 Blacks, and 52 Whites. These girls report a moderate degree of social mixing with members of the various racial groups.

Group LHH. This group consists of five Black girls who mix socially with Blacks and Whites, but not with Asians.

Group HHH. The two Asians, six Blacks, and 12 Whites who constitute this group of girls report themselves as being highly integrated with members of the other races in terms of their socializing at school and away from school.

On the surface it appears that the six groups produced from the Tryon hierarchical condensation are mainly racial in

nature and that the remaining data analysis could be improved by a post hoc combining or elimination of subjects. For this reason, the four Blacks and eight Whites of Group MLL were removed to produce a group of 13 Asian Isolates. The one Asian of Group LHL was removed to produce a group of 33 Black Isolates. In a like manner, the three Asians of Group LLM were removed to produce a group of White Isolates. Finally, the eight Blacks of Groups MMH and HMH were eliminated and the Asians of those groups and the Whites of the same two groups were combined to produce a group of Asian Integrates and White Integrates. The primary reason for removing the eight Blacks is that their small number might cause problems in the data analysis. For the same reason, Group LHH was also removed. If more subjects had been available, perhaps a sixth group of Black Integrates could have been found.

O-types Among the Boys.

The 17 O-types for the boys are shown in Table 7. The largest group, or O-type, among the boys consists of 19 boys whose mean profile is characterized by MMM. Two of these boys are Asian and the remainder are White. Essentially, this group consists of the White boys who are moderately integrated with both Asians and Blacks. All but one of these boys live in the high SES census tracts of Berkeley.

The second largest group consists of 15 boys whose profile is HMH. All but one of these boys are White. This one boy is Asian. While they mix largely with Asians and Whites, they do express moderate levels of social interaction with Blacks.

The third largest group consists of 14 boys whose mean profile is LLH. This group consists of Asians and Whites

who do not mix socially with Blacks but mix to a moderate degree with each other.

The remaining 14 groups are quite small, averaging about six boys per group. For this reason, a Tryon Hierarchical condensation was superimposed upon the groups. The results of the condensation are shown in Figure 2. This produced the six groups summarized in Table 8. This condensation, although not identical, does have much in common with the condensation for the girls. Within both sexes, groups LLM, LHL, and MMH are common. Group MLL of the girls corresponds roughly to group HLL of the boys. Both groups contain a high percentage of Asians. Group HHH of the girls is quite unique and is without a counterpart in the group of boys. Perhaps the closest correspondence is found in group HHM among the boys. Group HLM of the boys is also unique and it is without a counterpart among the girls. It consists of nine Asians and four Whites who apparently mix well together but do not interact with Blacks. Group LHH of the girls has no counterpart among the boys.

Even though there are different group cluster between the girls and the boys, the basic partitioning of the students is essentially the same, and for this reason, the same five groupings is used for the boys. This was accomplished by removing the one White student from group HLL to produce a set of Asian Isolates. Also, the one White student of group LHL was removed to produce a set of Black Isolates. Seven Asian and one Black student were removed from group LLM to produce a set of White Isolates. Finally, groups MMH, HLM, and HMH were combined to produce a set of 21 Asian Integrates and a set of 42 White Integrates.

Profiles of the Girls on the 18 Friendship and Socialization Items.

Mean responses of the 141 girls who were classified as Asian Isolates, Black Isolates, White Isolates, Asian Integrates, and White Integrates are reported in Table 9. As can be seen, none of the F ratios is less than 12.28 and all are significant at the $p \leq .0001$ level. This is not surprising since these five groups were identified in a manner that would tend to maximize the F ratios.

The 13 Asian Isolates report that, on the average, they have three or more close Asian friends, one close Black friend, one close White friend, very many Asian acquaintances and many Black and White acquaintances. Asian friends visit their home two to five times a month, while Blacks and Whites never do. They visit the homes of their Asian friends about the same number of times per month, but they never visit the homes of Blacks or Whites. They lunch with other Asians about five times each week and never lunch with Blacks or Whites. They have gone to six to ten after-school student activities during the past year with other Asians, and never with Blacks and Whites. Even though they report having many Black and White acquaintances, they do not mix to any great extent with either Blacks or Whites.

The 33 female Black Isolates report that they have no close Asian friends, three or more close Black friends, one close White friend, a few ASian acquaintances, very many Black acquaintances, and some White acquaintances. They never have Asians and Whites at their home though they often have other Blacks as visitors, five or more times each month. They never visit the homes of Whites and Asians but they often visit the homes of other

Blacks. They never lunch with Asians or Whites and lunch five times a week with other Blacks. They never attend school events with Asians and Whites, but they attend other outside school activities 11 to 19 times a year with other Blacks.

White Isolate females have one close Asian friend, no close Black friends, and three or more close White friends. They have some Asian and a few Black acquaintances, and very many White acquaintances. They never entertain Asians and Blacks at home, though they often entertain other Whites. They visit the homes of other Whites five or more times each month, but never visit the homes of Blacks and ASians. They never lunch with Asians or Blacks, but lunch about three times a week with other Whites. Finally, they never go to after-school functions with Asians or Blacks, and they go to one to five student after-school activities per year with other Whites.

A typical Asian Integrate girl has two close Black friends and three or more close friends who are Asian or White. They have very many acquaintances among all three racial groups. They never entertain Blacks at home but they entertain other Asians and Whites about two to five times a month. They visit the homes of other Asian and White friendsa bout two to five times each month, but never the homes of Blacks. They average lunch four times a week with other Asians and Whites and twice a week with Blacks. They go to some school activities with other Asians and Whites and a few with Blacks. As a group, they appear to be integrated on a friendship basis with both Blacks and Whites, but with Whites to a larger degree.

The White Integrates have about two close Asian and

two close Black friends, and many close White friends. They have very many acquaintances from all three races. They have White friends over to their home often, but do not entertain Asians and Blacks at home very often. The same is true for their visits to the homes of others of different races. They often visit the homes of other Whites, but rarely visit the homes of Asians and Blacks. They tend to average lunch with Asians and Blacks about three times a week and with Whites about four times a week. They go to after-school activities with Whites about six to ten times a year, and with Asians and Blacks about one to five times. They appear to be integrated socially with both Asians and Blacks to the same degree.

Profiles of the Boys on the 18 Friendship and Socialization Items.

Mean responses of the 123 boys who were classified as Asian Isolates, Black Isolates, White Isolates, ASian Integrates, and White Integrates are reported in Table 10. All F ratios exceed 7.58 and are significant at $p \leq .0001$. Careful inspection of the data shows that very few major differences exist between the two sexes with respect to their mean profiles on the 18 original items.

Among the Asian Isolates, boys report having fewer acquaintances who are Black or White than do the corresponding girls. Asian girls attend more school functions than do ASian boys, with other friends. On the other hand, Asian Isolates lunch with Whites about three times a week. But for the most part, it appears that the Asian boys are more isolated than are the Asian girls with respect to interaction with Blacks.

Among the Black Isolates, boys report having more close

friends who are Asian or White than do the Black Isolate girls. IN addition, Black Isolate boys report that they attend school activities a few times a year with Whites, while the Black Isolate girls report that they never attend after-school functions with either Asians or Whites. Thus, the Black Isolate boys tend to be slightly more integrated than their female counterparts.

Among the White Isolates, boys report that they have many Asian acquaintances and some Black acquaintances, while the corresponding set of girls reports some Asian acquaintances and a few Black acquaintances. Also, these boys have lunch more frequently with Asian and Black peers than do their female counterparts. Boys report that they lunch with Asians twice a week and with Blacks once a week. Girls report lunching with Asians once a week and never with Blacks. Thus, the White Isolate boy is slightly more integrated than his female counterpart.

Among the Asian Integrates, the girls report very many acquaintances among all three races, while boys report having many acquaintances who are Asian and Black. Also, the boys report having Asians and Blacks at home more often than do the girls. For the boys, the mean responses for having Asians at home is more than five times a month and for having Blacks at home is about one time per month. For the girls, the corresponding mean values are two to five times a month for Asians and never for Blacks. These differences are noted also for visiting the homes of Asians and Blacks.

Among the White Isolates, no significant differences between the profiles of boys and girls are noted.

Responses to Selected Items Appearing on the Questionnaire for the Girls.

The questionnaire on which this analysis is based contained 144 specific items of which 18 have been used to classify the two sexes into each of five socially integrated groups. Many of these items were placed on the questionnaire for specific studies and are not included in this analysis. The ones included in this analysis are listed in Table 11. Mean scores and F ratios for the girls are reported in Table 12.

Question 25: The Asian Isolates would like to have most of their Asian, Black, and White friends as friends five years from now. Black Isolates want none of their Asian friends and a few of their White friends as friends five years from now. The White Isolates want a few Black friends and most Asian friends five years hence. However, both the Asian and White Integrates want to keep most of their present friends of all three races as friends in the near future. The responses to these questions suggest that school integration per se has little to say about friendship expectations following graduation, if a tendency of social integration or social isolation becomes established. Students who indicate that they are socially integrated report that they wish to remain that way, while students who indicate that they are socially isolated from members of the other races also wish to remain that way following graduation, even if they have been educated in an integrated/desegregated school.

Question 27: Across the three groups of integrates, retrospective reportings on attitudes or feelings toward the various racial groups six years previous to the graduation were

either neutral or favorable with some rather subtle differences. If these retrospective reportings are valid, Asian Isolates were neutral toward Blacks and Whites. Black Isolates were neutral toward Asians and Whites. White Isolates were neutral toward Asians and Blacks. Finally, both Asian and White Integrates were neutral toward Blacks.

Question 28: Responses to this item are similar to those reported for Question 27, except that both Asian and White Integrates report that their attitudes toward Blacks have moved from a neutral position to a favorable one. Obviously, for these students, attendance in the integrated/desegrated school setting had the impact that advocates of school integration expected. Whether they were previously disposed or inclined to respond favorably toward integration is not known nor can it be ascertained from the data.

Question 38: All five groups of girls thought that schools that were mainly Asian, mainly Black, and mainly White have more school spirit than that which existed in Berkeley High School. Unfortunately, data is not available on how students at other schools would respond to a similar question, but the responses to this question suggest school spirit and cohesiveness among students were not very strong, at least as seen by these girls. This is also suggested in the responses to Question 39.

Question 39: Asian and Black Isolates report that Asians showed little school spirit at school gatherings. Black Isolates reported that Whites showed little school spirit. All groups report that Blacks showed lots of school spirit at school activities. It is worth noting that teachers reported that

mainly Blacks attend school dances and sporting events. This may account for some of the uniform reporting about Black school spirit. However, for the Asians and Whites, school spirit is not perceived at a high level.

Question 40: While questions 38 and 39 contain a hint of dissatisfaction because of apparent lack of school spirit, students across the five groups report that they liked attending Berkeley High School, either well, or very well.

Question 41: Except for the Black Isolates, no group of students would have enjoyed attending a school that was mainly Asian, mainly Black, or mainly White. This suggests that the Black Isolate girl prefers association with other Blacks and may consciously avoid interacting with Asians or Whites. These results seem to argue against the point that Black girls have not had the opportunity to associate with Whites and that if they do, they are rejected by Whites and Asians. There may be some truth to this statement, but in Berkeley High School, the proportion of girls that constitute the White Integrates and Asian Integrates is large. The opportunity exists for integration on a social level. The fact that Black Isolates would like attending a mainly Black school seems to argue against the point that they are discriminated against and left out. It appears to be a decision of their own and not one forced upon them by social and racial discrimination.

Question 42: Across the five groups, only the Black Isolates were never upset by the way a student of their own race treated them. Girls in the remaining four groups were upset sometimes by a member of their own race. While the hypothesis

holds for the Black Isolates, it does not hold for the other four groups of girls.

Question 43: Across the five social integration groups, only the Asian Integrates were never upset by the way a student of a different race treated them, but girls in the other groups were upset sometimes. Thus, the hypothesis holds for all groups except the White Integrates.

Question 45: The only group of students who reported that they had been shaken down or ripped off during their junior high school years or the first three years of the desegregation program, were the Asian Isolates. These students reported that on the average they had been ripped off once or twice by Blacks. Thus, the hypothesis is supported for the Asian Isolate, the Asian Integrate, and the White Integrate, but not for the Black or White Isolates.

Question 46: Black Isolates report that they were in fights or quarrels once or twice with other Blacks or Whites during their junior high school years. White Integrates also report that, on the average, they had fights or quarrels about once or twice with Blacks. With respect to the hypothesis under test, these findings are difficult to interpret. If the hypothesis were true, one would not expect a White Integrate to come into conflict with a Black unless the Black were an Isolate. Since no data is available as to which type of Blacks were generally involved in the interaction with a White Integrate, the evidence is not conclusive in either direction. However, if it is recalled that Black Integrates are lacking in the sample, then evidence in support of the hypothesis exists.

Question 47: Responses to this item suggest that shake-downs and rip offs for money, food, books, etc., are mainly a junior high school phenomenen, since across all groups, the common mean response is never. However, since the mean values are not all identical to zero, it follows that some girls have been ripped off. However, the absolute number appears to be small.

Question 48: Fights and quarrels appear to be unusual events, even in the senior high school years. Only Black Isolates and White Integrates report one or two fights or quarrels during their high school years with both Blacks and Whites. This may be no larger than observed in White middle-class schools in other communities, but in any case, the fighting of Black Isolates with other Blacks and White Integrates with other Whites does not support the hypothesis under test.

Question 49: Apparently, students were never threatened sufficiently by other students to stay home from school to any significant degree. However, since the mean values are not all zero, some girls must have been so threatened, but their number appears to be small.

Question 50: During their senior high school years, girls seemed to have no fear about coming to school because some other student had threatened them. Essentially, no girl was seriously threatened.

Responses to Selected Items Appearing on the Questionnaire for the Boys.

Mean scores for the boys on the items listed in Table 11 are reported in Table 13.

Question 25: Responses for the boys on this item are

quite different from those of the girls. Regardless of group membership, boys wish to maintain their present friends of the three racial backgrounds five years from high school graduation. The only exception is found among the Black Isolate group. Recalling that the Black Isolates average one close Asian friend and two close Black friends, they report that they would like to keep only a few of them as friends five years after graduation. Apparently, the friendships are not strong. Among the girls, the responses for the keeping of Asian and White friends were given by none and few, respectively. These findings support the decision reported earlier that the boys, regardless of group membership, appear to be more integrated than are the girls.

Question 27: While the mean scores for the boys are larger than those observed for the girls, the typical responses are the same for the two sexes with respect to their feelings about Asians, Blacks, and Whites prior to entering the Berkeley school system. Either the boys were neutral or favorably inclined to members of their own or other races. No group reported unfavorable attitudes.

Question 28: When the boys and girls are compared on this item, it is seen that the mean responses are essentially the same except for the responses of the Asian Isolates with respect to their present feelings toward Blacks. The Asian Isolates, after six years of desegregated schooling, report that they now have unfavorable attitudes toward Blacks. The mean change for the boys is from an early mean score of 1.2 to a later mean score of .6, or in terms of the response choices, from neutral to unfavorable. Though no evidence is presented,

it might be that the Asian Isolates had some unpleasant interactions with Blacks that produced this change in attitude and the concomitant avoidance of Blacks as friends.

Question 38: Compared to the girls, mean responses for the boys are generally lower, but for the most part, boys believe that there is more school spirit at schools that are mainly Asian, Black, or White. The only exception to this generalization is found among the Asian Isolates who report that school spirit among Asians would be about the same in a mainly Asian school. Similar to the girls' response, a strong school cohesiveness among students was not apparent to the boys.

Question 39: Responses across the boys are very similar to the responses across the girls. All five groups report that Asians and Whites demonstrated little or small amounts of school spirit, while Blacks expressed lots of school spirit. The only major exception to this finding is that Asian Isolates reported that Whites also demonstrated lots of school spirit at school gatherings.

Question 40: For the most part, students in all five groups liked attending Berkeley High School very well. The only exception is reported by the White Isolates who reported that they liked school attendance well. When compared to the girls, it is seen that the mean scores for the boys tend to be higher. This correlates favorably with their greater degree of integration as measured by their responses to the questions on which the Tryon cluster analysis was performed.

Question 41: Responses between the boys and girls are quite different to this question. Among the girls it was only the

group of Black Isolate that reported they would like to attend a school that was mainly of one race. Their preference was a mainly Black school. Both the Asian Isolate and Asian Integrate boys would like attendance at a school that was mainly Asian or at a school that was mainly White. The White Integrate boy is like the White Integrate girl in that he would not like to attend any school that was mainly of one race. Surprisingly, the Asian Isolate reported that he would enjoy attending a school that was mainly Asian, mainly Black, or even mainly White. With respect to the preference to attend a mainly Black school, the mean value is inconsistent with their responses to the other questions. The reasons for this inconsistency are not obvious.

Question 42: Responses to this item were almost identical group by group to those reported by the girls. The only group that was never upset by the way it was treated by a member of another race was the Black Isolate.

Question 43: Responses to this item are almost identical group by group to the responses made by the girls. Members of all groups were upset at some time, except for the Asian Integrate boys.

Question 45: During the junior high school years, all groups except the Black Isolate, report that they were ripped off or shaken down on the average of once or twice by a student who was Black. Since this is an average across students, it appears that shake downs were a daily occurrence on the part of Blacks on male students, except for Black Isolates. Since Black Integrate males are few in number, it is possible, though no evidence is offered, that Black Isolates were the instigators. If so, this

would support the hypothesis that agression is expressed out of the "in-group" toward "outsiders."

Question 46: Black Isolates reported that they had one or two fights during their junior high school years, with other Blacks and Whites. Also, the White Integrates reported that they had, on the average, one or two fights or quarrels with other Whites. Extending this average across the school population, it would indicate that conflict was a daily occurrence, independent of race. These findings do not lend support to the hypothesis under test.

Question 47: From the junior high school years to the senior high school years, the frequency of shake downs decreased, except for the White Isolates for whom the mean increased from .9 to 1.3. Such an increase could only be seen if the number of students who reported three to five shake downs increased. If these encounters were common for this group of students, it is quite possible that it and similar experiences could have resulted in their avoidance of Blacks as friends. If this were true, it would also tend to support the hypothesis that violence occurs across groups of non-integrated students.

Question 48: Among the boys, quarrels, fights, and arguments declined to a very low level during the senior high school years. Across all groups, the mean responses were essentially zero. Whereas White and Black girls reported one or two agressive interactions during their last three years of schooling, the corresponding group of boys reported that such agressive acts decreased to zero. This correlated with the greater degree of integration reported by the boys. It should also be noted that

the tendency to integrate may have been fixed during the junior high school years and that avoidance of conflict may simply result from the avoidance of social interaction.

Question 49: Apparently, boys were never threatened to any significant degree by others to prompt them to stay at home during their junior high school years.

Question 50: The senior high school years also seemed to offer no threats from other students that would induce the boys to want to stay home from school.

Summary and Discussion.

In this paper the Tryon clustering of objects was used to identify independent groups of students who were socially isolated or integrated across races in a desegregated public school environment. The school was desegregated with the best of intentions to promote interracial understanding and acceptance. The hypothesis that interracial violence and conflict is a function of the degree to which individual students were socially integrated was tested. The Tryon clustering procedure was effective in that it generated six clearly identifiable groups of students who were socially isolated or socially integrated across the Asian, Black, and White students in the school. However, the hypothesis relating interracial conflict and agression to the degree of social integration was not sustained.

In this case, the Tryon clustering procedure was efficient because the correlation coefficients among the 18 friendship and social interaction items included in the questionnaire on which the study is based are relatively large. For the Asian friendship items, the median correlation is .53; for the Black

friendship items, the median correlation is .53; and for the White friendship items, the median correlation is .43. Moreover, since the inter-correlations between these three clusters of items are close to zero in numerical value, the Tryon clustering procedure combined the Asian items into one factor, the Black items into a second factor, and the White items into a third factor. These three factors provide a close approximation to simple structure and independence. In addition to the possession of face validity, the Tryon cluster factors have high measures of reliability ranging from a low correlation of .82 to a high of .89. These figures are rather high for behavioral data.

After the 169 girls and 136 boys were scored on the three social integration factors, they were submitted to a Tryon object analysis in which 15 O-types were identified for the girls and 17 O-types were identified for the boys. While the O-types provided an interpretable separation of the students into various strata of socially interacting students, the numbers in some of the groups were so small that it was necessary to condense the groups into six Tryon object groups for each sex. Upon examination of the sex, race, and social class of the members of each cluster, the six groups were reduced to five groups that are characterized as Asian Isolates, Black Isolates, White Isolates, Asian Integrates, and White Integrates. No Black integrates could be identified. There is no reason to doubt that, if the sample had been larger, members of this groups would have been identified by the Tryon clustering procedure.

For these data, the Tryon cluster groupings were operationally meaningful. If more students had been in the sample,

it is quite likely that the number of retained clusters would have exceeded five, so that possible differences in mean values on the dependent variables would have been accentuated, provided that the amount of agression and student hostility was more prevalent than reported. Very few students reported extortion by other students, and very few reported quarrels or fights with other students of the same or of different races. Since the dependent variable of the study had such a low frequency of occurrence it is not surprising that the differences in the mean profiles across the five groups of students are nearly identical. While there are some statistically signficant differences, they are not outstanding.

Male Asian Isolates reported neutral feelings toward Blacks when they entered the Berkeley schools, but upon graduation, their attitudes were unfavorable. While graduates in the other clusters reported that they thought more school spirit existed in a mainly Asian school, the male Asian Isolates thought that it was about the same as that expressed at Berkeley High School. Both the Asian males and females reported that they were ripped off about one or two times by a Black student when enrolled in junior high school. This is also true of the male students in the other Asian and White clusters.

Both male and female Black Isolates reported that on the average they had one or two fights, quarrels, or arguments with other Black and White students when they were enrolled in junior high school. Surprisingly, the male Black Isolate initially had a neutral feeling toward Asians which at graduation had changed to favorable.

Male White Isolates averaged one or two extortion episodes with Blacks during both their junior and senior high school years.

Asian Integrates had neutral attitudes toward Blacks when they entered the schools, but at graduation, it was favorable. Like other Asian and White males, these males averaged one or two rip offs by Blacks during their junior high school years.

White male Integrates, like Asian Integrates, expressed neutral feelings toward Blacks at entrance into the Berkeley Schools, but, upon graduation, their attitudes had changed to favorable. In addition, they encountered one or two extortions by Blacks during their junior and senior high school years. In addition, they averaged one or two conflicts with other Whites during their senior high school years. Girls reported fights, quarrels, and arguments during both their junior and senior high school years, as well as conflicts with Whites during their senior high school years.

The impression held by school teachers and the general public, and perpetrated by the local press, that agression is common in the school is not apparent in the data collected. Because of the low frequencies, the hypothesis that conflict and violence centers around students who are not socially integrated is not supported. Since violence and conflict appear to be unusual events in this school, at least as reported by the students on which this analysis is based, it cannot be concluded that quarrels, fights, or extortions involve interactions across in-group and other group memberships. Both isolates and integrates report such experiences.

Figure 1. Hierarchical Condensation Diagram for Girls in Which 15 O-types were Combined to Produce 6 O-types.

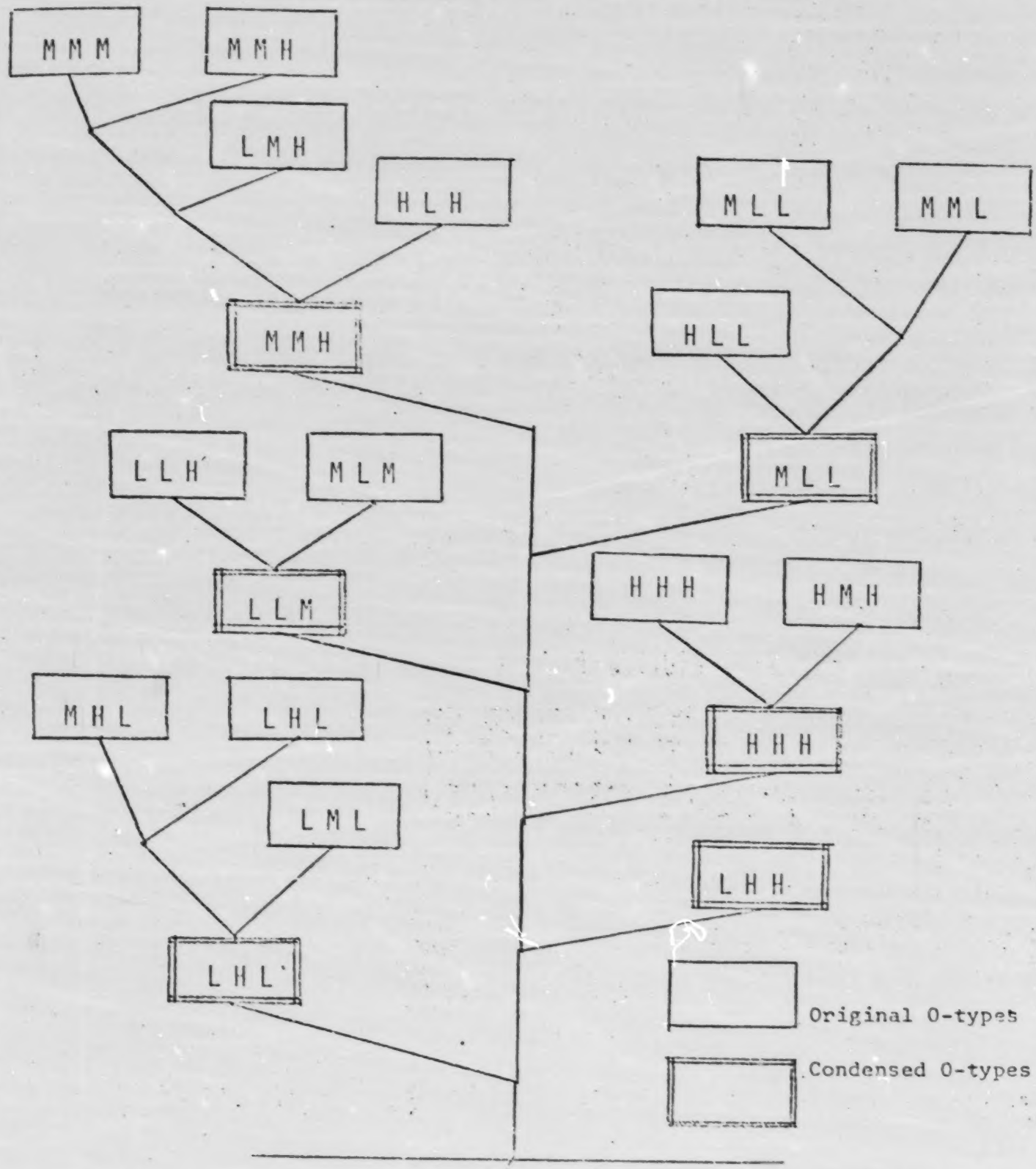

Figure 2. Hierarchical Condensation Diagram for Boys in Which 17 O-types Were Combined to Produce 6 O-types.

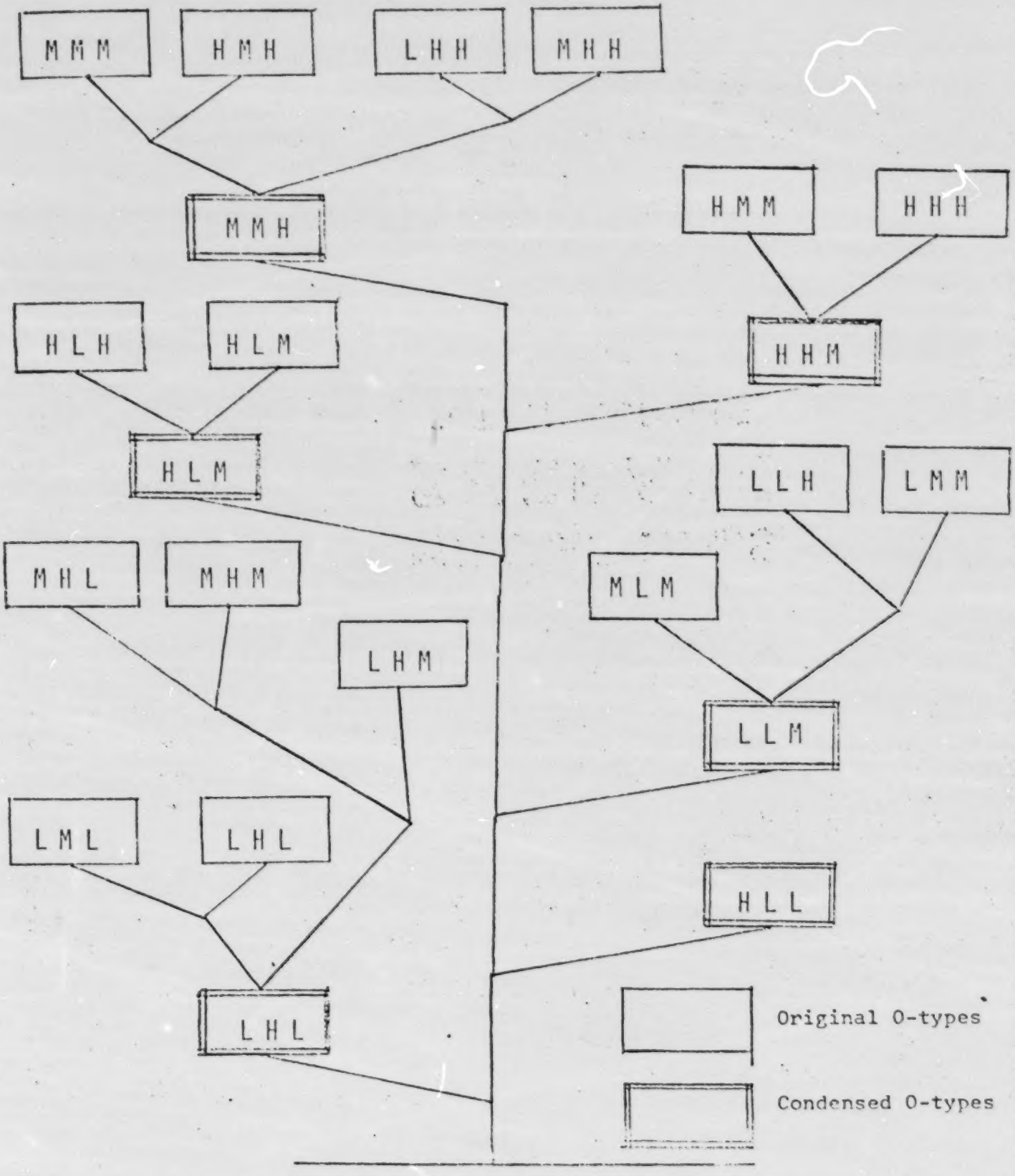

Table 1. Eighteen Items Used for the Tryon Cluster Analysis.

18. How many CLOSE friends do you have who are:

18a Asian?	NONE	ONE	TWO	THREE OR MORE
18b Black?	NONE	ONE	TWO	THREE OR MORE
18d White?	NONE	ONE	TWO	THREE OR MORE

19. How many ACQUAINTANCES do you have who are:

	(11 or more)	(6-10)	(3-5)	(1-2)	(0)
19a Asian?	VERY MANY	MANY	SOME	FEW	NONE
19b Black?	VERY MANY	MANY	SOME	FEW	NONE
19d White?	VERY MANY	MANY	SOME	FEW	NONE

20. Over the past year, how often have FRIENDS and ACQUAINTANCES visited your home that were:

	(more than 5 times a month)	(2-5 times a month)	(Once a month)	(0)
20a Asian?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER
20b Black?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER
20d White?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER

21. Over the past year, how often have YOU visited at the home of a friend or acquaintance who is:

	(more than 5 times a month)	(2-5 times a month)	(Once a month)	(0)
21a Asian?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER
21b Black?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER
21d White?	OFTEN	SOMETIMES	NOT TOO OFTEN	NEVER

22. How many times a week did YOU have lunch at school with someone who is:

22a Asian?	NEVER	ONCE	TWICE	THREE TIMES	FOUR TIMES	FIVE TIMES
22b Black?	NEVER	ONCE	TWICE	THREE TIMES	FOUR TIMES	FIVE TIMES
22d White?	NEVER	ONCE	TWICE	THREE TIMES	FOUR TIMES	FIVE TIMES

24. How many times during the past year have YOU gone to a sporting event, school dance, club meeting, school play, or other student activity outside of school time with someone who is:

	(20 or more)	(11 to 19)	(6 to 10)	(1 to 5)	(0)
24a Asian?	MANY	QUITE A FEW	SOME	FEW	NEVER
24b Black?	MANY	QUITE A FEW	SOME	FEW	NEVER
24d White?	MANY	QUITE A FEW	SOME	FEW	NEVER

Table 2. Correlation Matrix for 169 Girls.

Item	18A	19A	20A	21A	22A	24A	18B	19B	20B	21B	22B	24B	18W	19W	20W	21W	22W	24W
18A	1.00	.63	.53	.52	.50	.47	.15	.06	-.35	-.28	-.20	-.18	.30	.35	.08	.07	.15	.21
19A		1.00	.51	.51	.56	.59	-.16	.24	-.40	-.42	-.34	-.27	.36	.60	.24	.25	.26	.32
20A			1.00	.73	.43	.57	-.12	.05	-.15	-.19	-.20	-.13	.26	.34	.30	.21	.11	.33
21A				1.00	.49	.51	-.05	.05	-.17	-.09	-.12	-.08	.23	.28	.20	.17	.16	.33
22A					1.00	.50	-.20	.05	-.31	-.30	-.12	-.07	.14	.36	.08	.06	.34	.32
24A						1.00	-.08	.18	-.20	-.13	-.10	.20	.16	.36	.15	.13	.14	.64
18B							1.00	.44	.50	.55	.43	.38	-.09	-.17	-.17	-.20	-.12	-.08
19B								1.00	.39	.32	.24	.41	-.17	.09	-.13	-.18	-.13	.06
20B									1.00	.82	.62	.55	-.32	-.32	-.09	-.24	-.24	-.12
21B										1.00	.68	.57	-.32	-.38	-.12	-.22	-.23	-.12
22B											1.00	.54	-.20	-.28	-.15	-.21	-.05	-.01
24B												1.00	-.35	-.30	-.22	-.28	-.16	.18
18W													1.00	.63	.55	.63	.52	.35
19W														1.00	.50	.50	.47	.42
20W															1.00	.86	.51	.45
21W																1.00	.59	.46
22W																	1.00	.43
24W																		1.00

Table 3. Correlation Matrix for 136 Boys.

Item	18A	19A	20A	21A	22A	24A	18B	19B	20B	21B	22B	24B	18W	19W	20W	21W	22W	24W
18A	1.00	.50	.55	.64	.59	.61	.18	.01	-.15	-.15	-.12	.02	.21	.04	-.05	-.02	.20	.33
19A		1.00	.35	.36	.43	.31	-.11	.21	-.26	-.32	-.24	-.22	.26	.46	.17	.21	.21	.13
20A			1.00	.74	.52	.61	.10	-.04	-.04	-.11	-.05	.05	.16	.08	.19	.12	.19	.32
21A				1.00	.57	.64	.14	.04	-.08	-.04	-.13	.05	.10	.04	-.04	.05	.15	.32
22A					1.00	.54	-.05	-.13	-.28	-.31	-.09	-.04	.08	.02	-.06	-.07	.39	.31
24A						1.00	.07	.03	-.06	-.07	-.00	.36	.10	.01	.05	.08	.17	.61
18B							1.00	.41	.57	.61	.64	.51	.18	-.14	-.20	-.06	-.13	.05
19B								1.00	.46	.44	.40	.39	.04	.38	-.00	.12	-.05	.12
20B									1.00	.85	.53	.53	-.11	-.15	-.02	-.00	-.28	-.00
21B										1.00	.55	.58	-.07	-.18	-.09	-.03	-.28	-.01
22B											1.00	.60	-.04	-.17	-.20	-.14	-.00	.03
24B												1.00	-.08	-.16	-.23	-.17	-.18	.37
18W													1.00	.40	.41	.50	.32	.35
19W														1.00	.37	.44	.34	.25
20W															1.00	.81	.29	.37
21W																1.00	.34	.39
22W																	1.00	.28
24W																		1.00

Table 4. Factor Coefficients and Reliabilities for the Two Sets of Friendship Clusters.

	Factor					
Item	Girl 1	Girl 2	Girl 3	Boy 1	Boy 2	Boy 3
18A	.73*	-.18	.27	.80	-.05	.19
18B	-.11	.64	-.19	.07	.75	-.07
18W	.33	-.34	.74	.20	-.02	.63
19A	.76	-.31	.46	.52	-.21	.38
19B	.14	.50	-.10	.03	.56	.16
19W	.52	-.31	.70	.14	-.09	.55
20A	.77	-.17	.35	.77	-.02	.28
20B	-.36	.85	-.30	-.20	.82	-.15
20W	.24	-.21	.81	.06	-.17	.75
21A	.77	-.10	.31	.83	-.01	.16
21B	-.32	.87	-.32	-.23	.86	-.17
21W	.20	-.31	.89	.08	-.06	.86
22A	.67	-.22	.30	.73	-.20	.18
22B	-.24	.71	-.18	-.14	.74	-.14
22W	.27	-.19	.68	.30	-.21	.48
24A	.69	-.03	.36	.74	.07	.27
24B	-.12	.69	-.26	.04	.70	-.11
24W	.49	-.02	.58	.45	.12	.54
Reliability	.88	.87	.89	.88	.89	.82

*Large type-face highlights six largest factor weights per cluster.

Table 5. Tryon O-types for the Girls in Terms of Mean Factor Scores.

O-types in Factor			Mean Values on Factor			Number of Girls
Asian	Black	White	Asian	Black	White	
L	L	L				
L	L	M				
L	L	H	38.1	35.2	56.0	9
L	M	L	36.9	51.4	32.9	3
L	M	M				
L	M	H	43.4	46.5	56.5	20
L	H	L	37.2	64.4	36.2	25
L	H	M				
L	H	H	41.2	60.3	56.8	5
M	L	L	51.3	35.6	37.3	5
M	L	M	47.5	34.3	51.6	6
M	L	H				
M	M	L	45.2	45.6	43.8	9
M	M	M	53.5	45.5	51.8	21
M	M	H	55.4	51.0	60.2	20
M	H	L	46.3	62.5	38.1	6
M	H	M				
M	H	H				
H	L	L	62.9	43.5	40.2	11
H	L	M				
H	L	H	64.2	41.5	55.7	11
H	M	L				
H	M	M				
H	M	H	65.9	52.4	61.9	7
H	H	L				
H	H	M				
H	H	H	61.1	62.4	58.0	11
						169

Table 6. Mean Values for the Girls on the Three Factors and Racial Composition of the Six Groups.

		Factor Means			Race		
Group	Profile	Asian	Black	White	Asian	Black	White
I	M L L	54.2	42.7	40.9	13	4	8
II	L H L	38.8	63.0	36.1	1	33	0
III	L L M	41.9	34.9	54.2	3	0	12
IV	M M H	52.9	46.7	56.0	18	2	52
V	L H H	41.2	60.3	56.8	0	5	0
VI	H H H	63.0	58.5	59.5	2	6	12
		50.0	50.0	50.0	37	50	84

Table 7. Tryon O-types for the Boys in Terms of Mean Factor Scores.

O-types in Factor			Mean Values on Factor			Number of Boys
Asian	Black	White	Asian	Black	White	
L	L	L				
L	L	M				
L	L	H	41.0	38.5	55.8	14
L	M	L	39.0	50.2	31.3	6
L	M	M	40.0	45.1	48.8	10
L	M	H				
L	H	L	36.4	63.5	31.8	8
L	H	M	37.7	65.5	47.9	7
L	H	H	39.2	55.0	60.6	4
M	L	L				
M	L	M	49.5	38.5	47.7	10
M	L	H				
M	M	L				
M	M	M	50.3	50.9	54.7	19
M	M	H				
M	H	L	51.3	65.0	33.0	3
M	H	M	53.2	64.4	46.2	5
M	H	H	49.0	64.8	62.5	3
H	L	L	55.6	38.4	36.1	7
H	L	M	63.9	39.3	49.0	8
H	L	H	58.9	41.0	59.1	5
H	M	L				
H	M	M	66.6	54.8	50.5	9
H	M	H	58.2	52.7	59.5	15
H	H	L				
H	H	M				
H	H	H	65.6	61.7	63.5	3
						136

Table 8. Mean Values for the Boys on the Three Factors and Racial Composition of the Six Groups.

		Factor Means			Race		
Group	Profile	Asian	Black	White	Asian	Black	White
I	H L L	55.6	38.4	36.1	6	0	1
II	L H L	41.7	61.5	38.2	0	28	1
III	L L M	43.2	40.4	51.4	7	1	26
IV	M M H	52.0	53.0	57.6	3	1	37
V	H L M	62.0	40.0	52.9	9	0	4
VI	H H M	66.3	56.6	53.7	9	1	2
		50.0	50.0	50.0	34	31	71
							65
							136

Table 9. Mean Responses for Girls on the 18 Items of the Cluster Analysis According to Condensed O-types.

Item No.	Isolates Asian 13	Isolates Black 33	Isolates White 12	Integrates Asian 20	Integrates White 63	F-Ratio	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White
18A	2.8	.3	.8	2.9	1.8	30.88*	3 or more	none	one	3 or more	two
18B	1.0	2.7	.3	1.6	1.6	14.87*	one	3 or more	none	two	two
18W	.9	.9	3.0	2.8	2.9	54.43*	one	one	3 or more	3 or more	3 or more
19A	3.7	1.0	1.7	4.0	3.2	45.50*	very many	few	some	very many	very many
19B	2.8	3.8	1.3	3.5	3.3	18.25*	many	very many	few	very many	very many
19W	3.0	1.9	3.3	3.9	4.0	41.97*	many	some	very many	very many	very many
20A	1.6	.0	.3	1.6	1.3	17.08*	sometimes	never	never	sometimes	not often
20B	.2	2.8	.1	.3	1.2	53.64*	never	often	never	never	not often
20W	.4	.3	2.4	1.6	2.6	65.71*	never	never	often	sometimes	often
21A	1.9	.1	.3	1.7	1.3	16.73*	sometimes	never	never	sometimes	not often
21B	.1	2.7	.2	.2	1.2	60.17*	never	often	never	never	not often
21W	.2	.3	2.7	1.7	2.8	108.80*	never	never	often	sometimes	often
22A	4.4	.4	.8	3.8	2.7	25.14*	5 times	never	never	4 times	3 times
22B	.3	5.0	.4	1.8	2.7	43.93*	never	5 times	never	2 times	3 times
22W	.5	.8	3.2	4.0	4.0	38.78*	never	never	3 times	4 times	4 times
24A	1.5	.2	.1	2.3	1.3	13.48*	some	never	never	some	few
24B	.5	3.0	.1	1.0	1.0	24.48*	never	quite a few	never	few	few
24W	.7	.3	1.3	2.1	2.0	12.28*	never	never	few	some	some

*Significant at $p < .01$

Table 10. Mean Responses for the Boys on the 18 Items of the Cluster Analysis According to Condensed O-types.

	Isolates			Integrates		F-	Isolates			Integrates	
	Asian	Black	White	Asian	White	Ratio	Asian	Black	White	Asian	White
Item No.	6	28	26	21	42						
18A	2.5	.8	.5	2.8	1.8	19.69*	3 or more	one	none	3 or more	two
18B	1.0	2.8	.5	1.8	2.0	17.22*	one	3 or more	none	two	two
18W	1.3	1.6	2.5	2.5	2.9	9.31*	one	two	3 or more	3 or more	3 or more
19A	3.2	1.8	2.9	2.7	3.2	13.42*	very many	some	many	many	very many
19B	1.7	3.6	2.3	2.9	3.4	8.89*	some	very many	some	many	very many
19W	2.2	2.5	3.8	3.5	3.8	10.58*	some	many	very many	very many	very many
20A	1.5	.5	.5	2.4	1.4	19.10*	sometimes	never	never	often	not often
20B	.2	2.6	.4	.8	1.4	23.18*	never	often	never	not often	not often
20W	.3	.7	2.4	1.8	2.5	25.61*	never	never	often	sometimes	often
21A	1.7	.5	.3	2.5	1.2	23.98*	sometimes	never	never	often	not often
21B	.0	2.7	.2	.8	1.1	29.47*	never	often	never	not often	not often
21W	.0	.8	2.4	1.8	2.7	33.71*	never	not often	often	sometimes	often
22A	4.3	1.0	1.5	4.4	2.6	16.91*	5 times	once	once	5 times	3 times
22B	.0	4.6	.8	1.9	2.4	27.99*	never	5 times	once	2 times	2 times
22W	2.8	1.8	3.5	3.9	3.9	7.58*	3 times	2 times	4 times	4 times	4 times
24A	1.0	.6	.2	3.1	1.3	22.51*	few	never	never	quite a few	few
24B	.2	3.4	.3	1.6	1.4	28.29*	never	quite a few	never	some	few
24W	.3	.9	1.2	2.2	2.3	9.63*	never	few	few	some	some

*Significant at $p < .01$

Table 11. Questions Used in the Comparison Across the Five Socially Integrated Groups.

25. How many of your present FRIENDS or ACQUAINTANCES would you like to have as friends five years from now if they are:

25a Asian?	ALL OF THEM	MOST OF THEM	A FEW OF THEM	NONE OF THEM	I DO NOT HAVE THIS KIND OF FRIEND
25b Black?	ALL OF THEM	MOST OF THEM	A FEW OF THEM	NONE OF THEM	I DO NOT HAVE THIS KIND OF FRIEND
25d White?	ALL OF THEM	MOST OF THEM	A FEW OF THEM	NONE OF THEM	I DO NOT HAVE THIS KIND OF FRIEND

27. When I entered the Berkeley schools, my feelings toward:

27a Asians	WERE FAVORABLE	WERE NEUTRAL	WERE UNFAVORABLE
27b Blacks	WERE FAVORABLE	WERE NEUTRAL	WERE UNFAVORABLE
27d Whites	WERE FAVORABLE	WERE NEUTRAL	WERE UNFAVORABLE

28. Now, my feelings toward:

28a Asians	ARE FAVORABLE	ARE NEUTRAL	ARE UNFAVORABLE
28b Blacks	ARE FAVORABLE	ARE NEUTRAL	ARE UNFAVORABLE
28d Whites	ARE FAVORABLE	ARE NEUTRAL	ARE UNFAVORABLE

38. Compared with BHS, how much school spirit do YOU think is found at schools that are:

38a Mainly Asian	LESS THAN AT BHS	ABOUT THE SAME AS AT BHS	MORE THAN AT BHS	DON'T KNOW
38b Mainly Black	LESS THAN AT BHS	ABOUT THE SAME AS AT BHS	MORE THAN AT BHS	DON'T KNOW
38d Mainly White	LESS THAN AT BHS	ABOUT THE SAME AS AT BHS	MORE THAN AT BHS	DON'T KNOW

39. How much school spirit was there at school gatherings by:

39a Asians?	LOTS	SOME	LITTLE	NONE
39b Blacks?	LOTS	SOME	LITTLE	NONE
39d Whites?	LOTS	SOME	LITTLE	NONE

40. How well DID you like attending BHS?

VERY WELL WELL NOT VERY WELL NOT AT ALL

41. How well WOULD you have liked attending school each day if the school had been:

41a Mainly Asian	VERY WELL	WELL	NOT VERY WELL	NOT AT ALL
41b Mainly Black	VERY WELL	WELL	NOT VERY WELL	NOT AT ALL
41d Mainly White	VERY WELL	WELL	NOT VERY WELL	NOT AT ALL

42. During the past three years were there times when you were upset by the way a student of ANOTHER race treated you:

NEVER SOMETIMES OFTEN ALMOST ALL THE TIME

Table 11. (Continued.)

43. During the past three years were there times when you were upset by the way a student of your OWN race treated you?

NEVER SOMETIMES OFTEN ALMOST ALL THE TIME

45. During your JUNIOR high school years were you ever shaken down or ripped off for money, food, books, etc., by a student who was:

	(6 or more times)	(3-5 times)	(1-2 times)	(0)
45a Asian?	VERY OFTEN	OFTEN	RARELY	NEVER
45b Black?	VERY OFTEN	OFTEN	RARELY	NEVER
45d White?	VERY OFTEN	OFTEN	RARELY	NEVER

46. During your JUNIOR high school years, how often were you involved in a fight, quarrel, or argument with another student who was:

	(6 or more)	(3 to 5)	(1 to 2)	(0)
46a Asian?	VERY OFTEN	OFTEN	RARELY	NEVER
46b Black?	VERY OFTEN	OFTEN	RARELY	NEVER
46d White?	VERY OFTEN	OFTEN	RARELY	NEVER

47. During your SENIOR high school years were you ever shaken down or ripped off for money, food, books, etc., by a student who was:

	(6 or more times)	(3-5 times)	(1-2 times)	(0)
47a Asian?	VERY OFTEN	OFTEN	RARELY	NEVER
47b Black?	VERY OFTEN	OFTEN	RARELY	NEVER
47d White?	VERY OFTEN	OFTEN	RARELY	NEVER

48. During your SENIOR high school years, how often were you involved in a fight, quarrel, or argument with another student who was:

	(6 or more)	(3 to 5)	(1 to 2)	(0)
48a Asian?	VERY OFTEN	OFTEN	RARELY	NEVER
48b Black?	VERY OFTEN	OFTEN	RARELY	NEVER
48d White?	VERY OFTEN	OFTEN	RARELY	NEVER

49. During your JUNIOR high school years, how often did you go home early or stay away from school because you had been threatened by a student who was:

49a Asian?	NEVER	ONCE OR TWICE	MORE THAN TWICE
49b Black?	NEVER	ONCE OR TWICE	MORE THAN TWICE
49d White?	NEVER	ONCE OR TWICE	MORE THAN TWICE

50. During your SENIOR high school years, how often did you go home early or stay away from school because you had been threatened by a student who was:

50a Asian?	NEVER	ONCE OR TWICE	MORE THAN TWICE
50b Black?	NEVER	ONCE OR TWICE	MORE THAN TWICE
50d White?	NEVER	ONCE OR TWICE	MORE THAN TWICE

Table 12. Girls' Responses to Some Selected Items According to Degree of Social Integration.

Item	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White	F-Ratio	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White
25A	3.0	1.4	2.4	3.2	3.1	11.97*	most	none	most	all	most
25B	2.4	3.1	1.6	2.9	3.1	6.29*	most	most	few	most	most
25W	2.4	2.0	3.2	3.1	3.0	10.80*	most	few	all	most	most
27A	1.5	1.1	1.3	1.8	1.5	6.87*	favorable	neutral	neutral	favorable	favorable
27B	1.0	1.6	1.2	1.1	1.2	4.41*	neutral	favorable	neutral	neutral	neutral
27W	1.2	.9	1.5	1.7	1.6	12.81*	neutral	neutral	favorable	favorable	favorable
28A	1.5	1.2	1.5	1.8	1.6	5.12*	favorbale	neutral	favorable	favorable	favorable
28B	.9	1.6	1.2	1.5	1.5	4.20*	neutral	favorable	neutral	favorable	favorable
28W	1.1	.9	1.4	1.7	1.6	13.67*	neutral	neutral	favorable	favorable	favorable
38A	1.6	2.0	2.1	2.0	2.2	.74	more	more	more	more	more
38B	1.9	1.9	1.9	2.1	2.1	.64	more	more	more	more	more
38W	1.7	1.7	1.7	1.8	1.9	.31	more	more	more	more	more
39A	1.1	1.2	1.9	1.7	1.7	2.81	little	little	some	some	some
39B	2.3	2.5	2.7	2.6	2.5	.53	lots	lots	lots	lots	lots
39W	1.8	1.5	1.4	1.8	1.3	2.06	some	some	little	some	some
40	1.9	2.5	1.9	2.4	2.0	2.61	well	very well	well	very well	well
41A	1.1	.9	.6	1.3	1.3	2.33	not well	not well	not at all	not well	not well
41B	.7	1.7	.5	1.0	1.1	6.04*	not at all	well	not at all	not well	not well
41W	.5	.9	1.0	1.1	1.2	1.91	not at all	not well	not well	not well	not well
42	1.4	.6	1.3	1.0	1.1	6.56*	sometimes	never	sometimes	sometimes	sometimes
43	.9	1.0	1.2	.7	1.1	1.86	sometimes	sometimes	sometimes	never	sometimes
45A	.0	.1	.1	.0	.0	.69	zero	zero	zero	zero	zero
45B	.8	.1	.6	.7	.6	4.18*	1 or 2	zero	zero	zero	zero
45W	.0	.1	.4	.0	.1	3.53*	zero	zero	zero	zero	zero

Table 12. (Continued)

Item	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White	F-Ratio	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White
46A	.1	.3	.1	.2	.2	.61	zero	zero	zero	zero	zero
46B	.2	.9	.6	.5	.8	3.84	zero	1 or 2	zero	zero	1 or 2
46W	.1	.9	.7	.2	.7	4.12	zero	1 or 2	zero	zero	zero
47A	.0	.1	.0	.0	.1	.61	zero	zero	zero	zero	zero
47B	.4	.1	.6	.4	.7	4.52	zero	zero	zero	zero	zero
47W	.0	.0	.3	.0	.1	2.29	zero	zero	zero	zero	zero
48A	.2	.2	.1	.4	.3	1.32	zero	zero	zero	zero	zero
48B	.2	.8	.6	.4	.8	3.42	zero	1 or 2	zero	zero	1 or 2
48W	.0	.8	.4	.4	.8	3.40	zero	1 or 2	zero	zero	1 or 2
49A	.0	.0	.0	.0	.0	.00	zero	zero	zero	zero	zero
49B	.1	.1	.2	.0	.1	.82	zero	zero	zero	zero	zero
49W	.0	.0	.3	.0	.0	.05	zero	zero	zero	zero	zero
50A	.0	.0	.0	.0	.0	.00	zero	zero	zero	zero	zero
50B	.2	.1	.3	.1	.1	.94	zero	zero	zero	zero	zero
50W	.0	.0	.1	.0	.0	3.11	zero	zero	zero	zero	zero

*Significant at $p < .01$

Table 13. Boys' Responses to Some Selected Items According to Degree of Social Integration.

Item	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White	F-Ratio	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White
25A	3.2	1.9	3.0	3.5	3.2	9.23*	all	few	most	all	all
25B	2.5	3.2	2.5	2.8	3.2	2.85	most	all	most	most	all
25W	2.8	2.3	3.1	3.1	3.3	3.62*	most	few	most	most	all
27A	1.7	1.1	1.5	1.7	1.5	4.86*	favorable	neutral	favorable	favorable	favorable
27B	1.2	1.7	.9	1.2	1.3	5.27*	neutral	favorable	neutral	neutral	neutral
27W	1.3	1.1	1.6	1.7	1.6	4.09*	neutral	neutral	favorable	favorable	favorable
28A	1.5	1.4	1.5	1.9	1.7	3.00	favorable	favorable	favorable	favorable	favorable
28B	.6	1.7	1.1	1.4	1.6	7.30*	unfavorable	favorable	neutral	favorable	favorable
28W	1.3	1.2	1.4	1.7	1.7	3.40	neutral	neutral	favorable	favorable	favorable
38A	1.0	1.5	2.2	1.9	2.0	2.1	same	more	more	more	more
38B	2.2	1.4	2.1	2.7	2.0	3.4	more	more	more	more	more
38W	1.8	1.3	1.8	1.5	1.7	.9	more	same	more	more	more
39A	2.0	1.5	1.8	1.9	1.8	.9	some	some	some	some	some
39B	2.7	2.8	2.4	2.7	2.3	2.4	lots	lots	lots	lots	lots
39W	2.5	1.8	1.4	1.9	1.7	2.4	lots	some	little	some	some
40	2.5	2.5	2.0	2.4	2.3	1.7	very well	very well	well	very well	very well
41A	1.6	1.4	1.3	1.6	1.2	1.02	well	not well	not well	well	not well
41B	1.7	2.1	.9	1.0	1.0	12.51*	well	well	not well	not well	not well
41W	1.8	1.3	1.6	1.5	1.3	1.01	well	not well	well	well	not well
42	1.0	.6	1.2	.9	1.1	4.22*	sometimes	never	sometimes	sometimes	sometimes
43	.8	.9	.9	.5	1.0	2.89	sometimes	sometimes	sometimes	never	sometimes
45A	.0	.1	.0	.1	.1	.64	zero	zero	zero	zero	zero
45B	.8	.3	.9	.8	.9	2.40	1 or 2	zero	1 or 2	1 or 2	1 or 2
45W	.2	.1	.2	.1	.2	.48	zero	zero	zero	zero	zero

Table 13. (Continued.)

Item	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White	F-Ratio	Isolates Asian	Isolates Black	Isolates White	Integrates Asian	Integrates White
46A	.2	.3	.3	.4	.3	.39	zero	zero	zero	zero	zero
46B	.7	.9	.7	.6	.7	.54	zero	1 or 2	zero	zero	zero
46W	.5	.8	.5	.5	.9	1.92	zero	1 or 2	zero	zero	1 or 2
47A	.0	.0	.0	.2	.0	1.38	zero	zero	zero	zero	zero
47B	.5	.1	1.3	.3	.8	10.78*	zero	zero	1 or 2	zero	1 or 2
47W	.0	.0	.2	.1	.1	.79	zero	zero	zero	zero	zero
48A	.0	.1	.2	.5	.3	2.08	zero	zero	zero	zero	zero
48B	.2	.5	.7	.6	.6	.94	zero	zero	zero	zero	zero
48W	.0	.3	.5	.6	.7	2.09	zero	zero	zero	zero	zero
49A	.0	.0	.0	.0	.0	.41	zero	zero	zero	zero	zero
49B	.0	.1	.3	.2	.2	.53	zero	zero	zero	zero	zero
49W	.0	.1	.1	.0	.0	.43	zero	zero	zero	zero	zero
50A											
50B	.0	.0	.2	.1	.1	.91	zero	zero	zero	zero	zero
50W	.0	.0	.0	.0	.0	.37	zero	zero	zero	zero	zero

*Significant at $p < .01$

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